

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

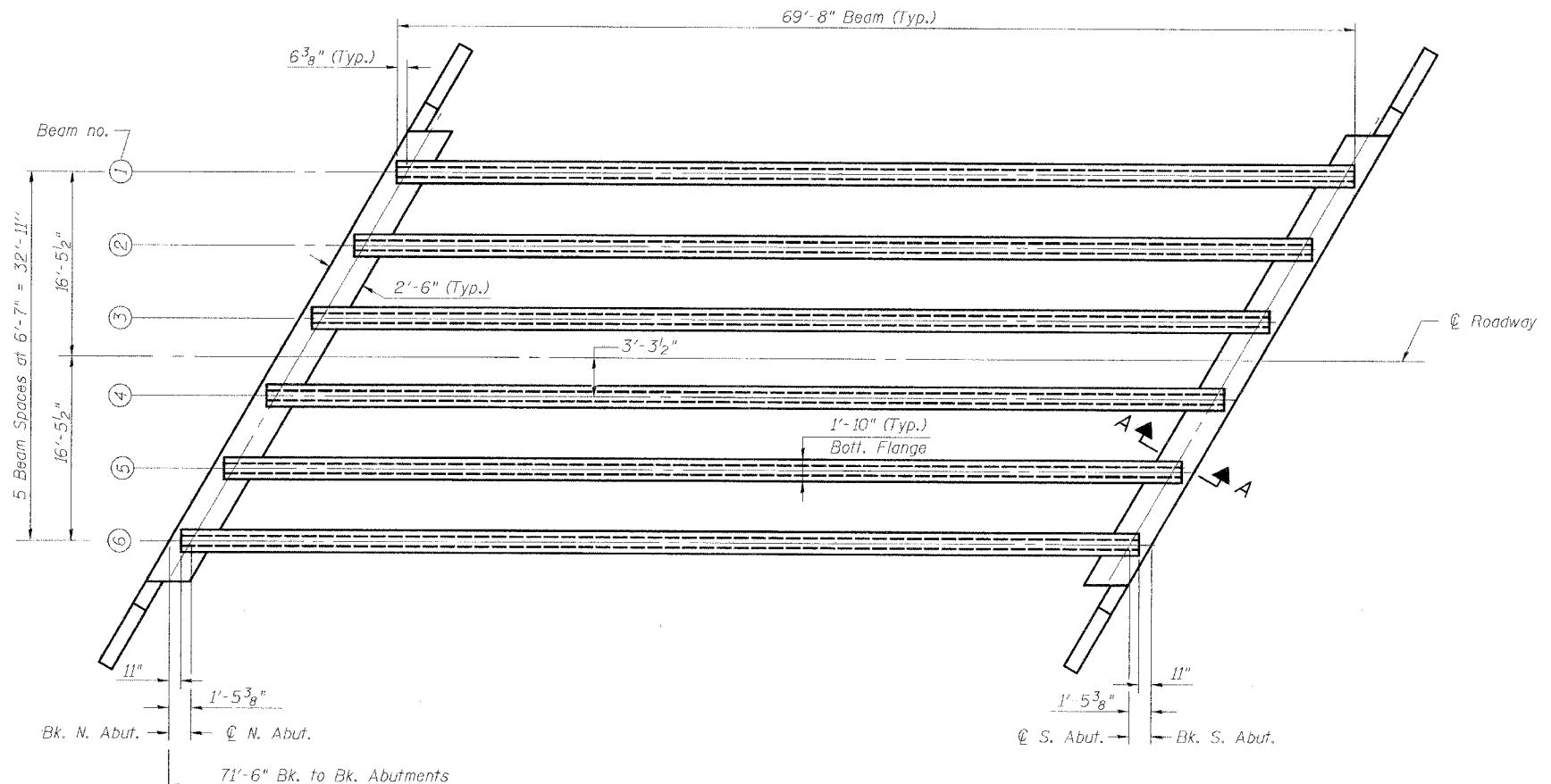
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 2826	110B-1	JEFFERSON	11	20

FED. AID PROJ. NO. 7 ILLINOIS FED. AID PROJECT

SHEET NO. 9

16 SHEETS

Contract #8013



INTERIOR BEAM MOMENT TABLE	
	0.5 Span
I	(in ⁴) 90956
I'	(in ⁴) 274044
S _b	(in ³) 5153
S _{b'}	(in ³) 8695
S _t	(in ³) 3736
S _{t'}	(in ³) 26143
D	(k'/')
M _D	('k) 1.127
s _D	(k'/') 676
M _{sD}	(k') 0.450
M _L	(k') 270
M _L	(k') 590
M _{Imp}	(k) 152

INTERIOR BEAM REACTION TABLE	
	Abut's.
R _D	(k) 39.3
R _{sD}	(k) 15.7
R _L	(k) 37.3
Imp.	(k) 9.6
R (Total)	(k) 101.8

I and I' are the moment of inertia and composite moment of inertia of the beam section.

S_b and S_{b'} are the non composite and composite section modulus for the bottom fiber of the prestressed beam.

S_t and S_{t'} are the non-composite and composite section modulus for the top fiber of the prestressed beam.

Q: Un-factored non-composite dead load (kips/ft.).

M_D: is the moment due to dead loads on the non-composite prestressed beam. It is conservatively calculated at 0.5 of the span.

s Q: Un-factored long-term composite (superimposed) dead load (kips/ft.).

M_{sD}: is the moment due to dead loads on the composite section.

M_L: is the moment due to live load on the composite section.
M_{Imp}: (Imp) is the moment due to live load impact on the composite section.

Notes:

See sheet 8 of 16 for Section A-A.

FRAMING PLAN

DESIGNED CMF
CHECKED KCM
DRAWN JLM
CHECKED TMM

FRAMING PLAN

IL ROUTE 37 OVER LIMESTONE CREEK

F.A.S. ROUTE 2826 SECTION 110B-1

JEFFERSON COUNTY

STA. 836+80

S.N. 041-0107



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PROFESSIONAL DESIGN No. 184-002754